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CENTRAL INTELLIGENCE AGENCY

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SOURCE Documentary as indicated. (Information specifically requested.)

RECENTLY PUBLISHED RESEARCH OF THE FIRST ORDER OF LENIN MEDICAL INSTITUTE, MOSCOW, USSR

"Toxicity of Water-soluble Preparation of Vitamin K," M. N. Kazantseva, Lenin Med Inst

"Byull Eksper Biol i Med" Vol 21, No 4, 1946, pp 72-3

On intravenous injection of individual doses of 60-80 g/kg of a 1% solution of vitamin K (metinon), cats suffer from respiratory disturbances and finally low pulse rate and blood pressure. There are no visible thrombi; the blood prothrombin concentration is increased. Cats can stand larger amounts of vitamin K in divided doses. No cumulative action was demonstrated.

"Accumulation of Arsenic in the Organs of Rabbits Infected with Syphilis," E. I. Apasova, Lenin Med Inst

"Vestnik Venerol i Dermatol" No 2, 1945, pp 23-7

To clarify contradictory reports of loci of As accumulation, rabbits were infected with syphilis and then treated with novarsenol (I), miarsenol (II), and osarsol (III). Microdeterminations of As were by the iodotitrometric method of Alkraft and Green, but HCl was substituted for H_2SO_4 in disintegrating the organs. There was a greater accumulation of As in syphilitic animals than in healthy ones. Intravenously, I resulted in 4 times as much retention in the brain as with II or III. III produced 4 times as much retention in the digestive tract as with I or II. The relatively smaller amounts of As in other organs, follow-

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ing injection of III, probably explains its inferior therapeutic value. Different individuals, similarly treated, varied markedly in As retention, making it impossible to determine the dose administered from As accumulation in organs. In descending order of the amounts of As stored, the organs are kidney, spleen, liver, brain, lungs. Loss of the accumulated As was very slow. From the results, the best therapeutic treatment seems to be intravenous injections of I.

"Action of Bromine Salts on the Thyroid Gland," E. N. Emel'yanova, Lenin Med Inst

"Byull Eksper Biol i Med" Vol 20, No 10/11, 1945, pp 39-42

The effect of subcutaneous injections of KBr on the thyroid gland of guinea pigs, white mice, and white rats was studied. With all animals, significant increases in the weight of the thyroid were obtained by administration of 12.5 mg of KBr over a period of 5 days. The epithelial cells were increased in size, and an increase in the proportion of cubical and cylindrical cells was noted; the secretory activity of the gland was increased.

"Effect of D and K Vitamins on the Bile-forming Function of the Liver," A. V. Gubar, Chair of Physiol, Lenin Med Inst, Moscow

"Byull Eksper Biol i Med" Vol 18, No 4/5, 1944, pp 47-50

Vitamin D was introduced under the skin of dogs 5 days in succession in one cc doses containing 12,000 international units. It had no effect on the bile-forming function of the liver. A solution of the synthetically prepared vitamin K (2-methyl-1,4-naphthoquinone) in apricot-kernel oil was injected into the muscles. It produced a short increase in the secretion of the bile followed by a prolonged depression in the bile secretion. The depression period lasted about 10 days; then the bile-forming function of the liver started to increase gradually and in 2-3 weeks from the last injection of vitamin K it became normal.

"Combined Action of Vasodilators on Peripheral Vessels," A. I. Mironenko, Lenin Med Inst

"Farmakol i Toksikol" Vol 7, No 6, 1944, pp 46-51

The vasodilators papaverine-HCl (I), $NaNO_2$ (II), and diuretin (III) were tried in pairs on isolated rabbit ears. The pairs showed activities which were more than additive. The selected test pairs, and concentrations in parts per million, were: II-40, I-10; I-1 and 10, III-0.4 and 0.04; II-40, III-0.2 and 0.4.

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